

being electrically connected to said contact pads of said substrate, said substrate being adapted to connect the first semiconductor chip with other elements of a circuit; and

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(c) a second semiconductor chip having front and rear surfaces and having contacts on said front surface, said second semiconductor chip overlying said front surface of said first semiconductor chip, at least some of said contacts on said second semiconductor chip being connected to at least some of said contacts on said first semiconductor chip, said second semiconductor chip being movable with respect to said first semiconductor chip,

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further comprising terminals connected to said contacts of said second semiconductor chip, at least some of said terminals overlying a surface of said second semiconductor chip, said terminals overlying said surface of said second semiconductor chip being movable with respect to said second semiconductor chip, said contacts of said second semiconductor chip being connected to said contacts of said first semiconductor chip through said terminals.

33 35. (Amended) An assembly as claimed in claim 32 further comprising a dielectric element disposed between said first and second semiconductor chips.

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35 37. (Amended) An assembly as claimed in claim 32 wherein said front surface of said second semiconductor chip faces downwardly toward said front surface of said first semiconductor chip, and wherein central region of said dielectric element overlies said front surface of said second semiconductor chip.

39 41. (Amended) A semiconductor chip assembly comprising:

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(a) a first semiconductor chip having a front surface, a rear surface and contacts on said front surface;

(b) a substrate having contact pads thereon, said substrate extending beneath the rear surface of the first semiconductor chip so that said front surface of said first semiconductor chip faces upwardly away from said substrate, at least some of said contacts on said first semiconductor chip being electrically connected to said contact pads of said substrate, said substrate being adapted to connect the first semiconductor chip with other elements of a circuit; and

B3 (c) a second semiconductor chip having front and rear surfaces and having contacts on said front surface, said second semiconductor chip overlying said front surface of said first semiconductor chip, at least some of said contacts on said second semiconductor chip being connected to at least some of said contacts on said first semiconductor chip, said second semiconductor chip being movable with respect to said first semiconductor chip,

further comprising terminals overlying said front surface of said first semiconductor chip, said terminals being movable with respect to said first semiconductor chip, at least some of said contacts of said second semiconductor chip being connected to at least some of said contacts on said first semiconductor chip through said terminals.

44 40. (Amended) A semiconductor chip assembly comprising:

(a) a first semiconductor chip having a front surface, a rear surface and contacts on said front surface;

B4 (b) a substrate having contact pads thereon, said substrate extending beneath the rear surface of the first semiconductor chip so that said front surface of said first semiconductor chip faces upwardly away from said substrate, at least some of said contacts on said first semiconductor chip being electrically connected to said contact pads of said

substrate, said substrate being adapted to connect the first semiconductor chip with other elements of a circuit; and

(c) a second semiconductor chip having front and rear surfaces and having contacts on said front surface, said second semiconductor chip overlying said front surface of said first semiconductor chip, at least some of said contacts on said second semiconductor chip being connected to at least some of said contacts on said first semiconductor chip, said second semiconductor chip being movable with respect to said first semiconductor chip,

further comprising a compliant layer disposed between said semiconductor chips.

BH 45 ~~47~~. (Amended) A semiconductor chip assembly comprising:

(a) a first semiconductor chip having a front surface, a rear surface and contacts on said front surface;

(b) a substrate having contact pads thereon, said substrate extending beneath the rear surface of the first semiconductor chip so that said front surface of said first semiconductor chip faces upwardly away from said substrate, at least some of said contacts on said first semiconductor chip being electrically connected to said contact pads of said substrate, said substrate being adapted to connect the first semiconductor chip with other elements of a circuit; and

(c) a second semiconductor chip having front and rear surfaces and having contacts on said front surface, said second semiconductor chip overlying said front surface of said first semiconductor chip, at least some of said contacts on said second semiconductor chip being connected to at least some of said contacts on said first semiconductor chip, said second semiconductor chip being movable with respect to said first semiconductor chip,

further comprising bonding wires, at least some of said contacts on said first semiconductor chip being electrically connected to contact pads on said substrate by said bonding wires.

46 48. (Amended) A semiconductor chip assembly comprising:

B4 (a) a first semiconductor chip having a front surface, a rear surface and contacts on said front surface;

(b) a substrate having contact pads thereon, said substrate extending beneath the rear surface of the first semiconductor chip so that said front surface of said first semiconductor chip faces upwardly away from said substrate, at least some of said contacts on said first semiconductor chip being electrically connected to said contact pads of said substrate, said substrate being adapted to connect the first semiconductor chip with other elements of a circuit; and

(c) a second semiconductor chip having front and rear surfaces and having contacts on said front surface, said second semiconductor chip overlying said front surface of said first semiconductor chip, at least some of said contacts on said second semiconductor chip being connected to at least some of said contacts on said first semiconductor chip, said second semiconductor chip being movable with respect to said first semiconductor chip,

wherein said substrate is a circuit panel.

50 52. (Amended) A semiconductor chip assembly, comprising:

B5 a) a first semiconductor chip having a front surface, a rear surface and contacts on said front surface;

b) a second semiconductor chip having a front surface, a rear surface and contacts on said front surface, said rear surface of said second semiconductor chip being juxtaposed with said front surface of said first semiconductor chip;

c) a third semiconductor chip having a front surface and a rear surface, said rear surface of said third semiconductor chip being juxtaposed with said front surface of said second semiconductor chip;

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d) a first backing element having electrically conductive first terminals, said first backing element being juxtaposed with said rear surface of said first semiconductor chip so that at least some of said terminals overlie said rear surface of said first semiconductor chip, at least some of said contacts on said first and said second semiconductor chips being electrically connected to at least some of said terminals; and

e) a substrate having contact pads thereon, said first terminals being connected to said contact pads of said substrate, said substrate being adapted to connect the assembly with other elements of a circuit, said terminals of said backing element overlying said rear surface of said first semiconductor chip.

[Please cancel Claim 33.

Insert new claims 63-68, as follows:

61 ~~63~~. (New) The assembly as claimed in claim ~~2~~,
wherein the backing element comprises a dielectric element and a
compliant layer, said compliant layer having an elastic modulus
lower than an elastic modulus of said dielectric element. 61

62 ~~64~~. (New) The assembly as claimed in Claim ~~63~~,
wherein said dielectric element comprises a flexible layer. 61

B6 63 ~~65~~. (New) The assembly as claimed in claim ~~22~~,
wherein said first backing element has a bonding material
extending into the holes and connecting said terminals to said
contact pads of said substrate. 21

64 ~~66~~. (New) The assembly as claimed in claim ~~30~~,
wherein said terminals are on said dielectric element and said
dielectric element has a central region, at least some of said
terminals being disposed in said central region. 33

65 ~~67~~. (New) The assembly as claimed in claim ~~52~~,
wherein said backing element comprises a dielectric element and
a compliant layer, said compliant layer having an elastic
modulus lower than the elastic modulus of said dielectric
element. 50

66 ~~68~~. (New) The assembly as claimed in Claim ~~67~~,
wherein said dielectric element comprises a flexible layer. 65

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